

**Results:**

- Epidemiology
    - Origin — 65% African Somalian, 25% African, 18% other
    - Sex — 94% males, 6% females
    - Age — 20 to 36 year olds
    - Past Psychiatric History — 12.5%
    - Family History — Unknown.
  - Prognosis
    - Sever Khat abuse prior to episode — 94%
    - Rapid resolution — 88%
    - Recurrence of illness with Khat abuse — 62.5%
    - Treated with neuroleptic and recovered — 75%
    - Spontaneous recovery — 25%
  - Clinical Picture
    - Orientation & Consciousness — 62.5% N/R 37.5%
    - Aggressive Symptoms — 68.75%
    - Manic Symptoms — 56.25%
    - Paranoid Delusions — 68.75%
    - Grandiose Delusions — 31.25%
    - 1st Rank Symptoms — 25.00%
    - Auditory Hallucinations — 43.75%
    - Tactile Hallucinations — 6.25%
    - Olfactory Hallucinations — 6.25%
- Conclusion:** Khat induced psychosis — prominent in African ethnic groups and males in their twenties.

More likely for heavy abusers to acquire psychotic symptoms and become hostile. Most patients respond to neuroleptic treatment within two weeks and others recover spontaneously if they stop abusing Khat.

### ECOLOGY OF PSYCHOTHERAPY. A VIEW FROM THE PROVINCES OF RUSSIA

Igor Yudin. *Independent Medical Company "Health & Future" Komsomolskaya 128-33, Oryol, 302016, Russia*

In my report I would like to discuss the influence of professional activity on the quality of life of a psychotherapist in the Russian provinces.

I would also like to look at some models of psychotherapy, such as:

- Healthy psychotherapist–healthy client;
- Healthy psychotherapist–sick client;
- Sick psychotherapist–healthy client;
- Sick psychotherapist–sick client.

I would like to answer the following questions:

- How should one solve the problems of the client: either for the client, apart from the client, at the expense of the client, or together with the client?
  - How can a psychotherapist work without getting burned out?
  - What are the peculiarities of working with transfer and counter-transfer in the Russian conditions?
  - Is psychotherapy in Russia a science, an art or an occupation?
  - How long should one study, for how long should one get treatment?
- Happiness and psychotherapy — is it possible?

## P5. Schizophrenia, antipsychotics and neuroimaging

### PHENOTYPIC AND FUNCTIONAL CHANGES OF IMMUNE REACTIVITY IN SCHIZOPHRENIA AND DEPRESSION

M.T. Abou-Saleh. *Department of Psychiatry & Behavioural Sciences, United Arab Emirates University, P.O. box 17666, Al Ain, U.A.E.; Faculty of Medicine and Health Sciences, United Arab Emirates University, P.O. box 17666, Al Ain, U.A.E.*

There is growing evidence that psychoneuroimmunological interactions contribute to the pathogenesis of depression and schizophrenia. We have initiated a comprehensive study of phenotypic and functional determinants of immune reactivity in 60 patients with these conditions and 30 normal control subjects. The study involved screening of the subpopulation of immunocompetent (CD3<sup>+</sup> T, CD15<sup>+</sup>B, CD4<sup>+</sup> and CDB<sup>+</sup>T) cell subsets, NK cells and monocytes. Further, we determined the level of proinflammatory cytokines (IL-1, TNF- $\alpha$ , IL-6), and a marker of T-cell activation (soluble IL-2 receptor) in the serum, and analysed the production of immunoregulatory cytokines (IL-2, IL-4, TGF- $\beta$ ) in unstimulated and in vitro Con A stimulated lymphoid cells. Initial evaluation revealed significantly increased monocyte counts and serum levels of soluble IL-2 receptor in the patient group ( $p < 0.01$ ). These findings support the notion of enhanced monocyte and T cell reactivity indicating the role of altered cell-mediated immune reactions in schizophrenia and depression. More detailed analyses of the relationships between well defined clinical types of these disorders and measured immunological parameters are undertaken and the results will be presented.

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### MAGNESIUM DEFICIENCY IN PATIENTS WITH SCHIZOPHRENIA

M.W. Agelink<sup>1</sup>, T. Zeit<sup>1</sup>, R. Malessa<sup>2</sup>, E. Kamcilli<sup>1</sup>, E. Klieser<sup>1</sup>. *From the Department of Psychiatry, EvK Gelsenkirchen, Munkelstr. 27, 45879 Gelsenkirchen; <sup>1</sup> University of Bochum and <sup>2</sup> Department of Neurology, University of Essen, Hufelandstr., 45131 Essen, Germany*

**Objective:** To compare blood serum concentrations of magnesium, copper and zinc in schizophrenic patients and in healthy subjects.

**Methods:** We evaluated serum Mg, Zn and Cu concentrations in 24 strictly selected drug-free patients (diagnosis were made according to DSM IV™ mean age 36.8  $\pm$  12.1) and in 23 healthy controls (mean age 30.8  $\pm$  5.4). In eight patients treated with oral haloperidol additional blood samples were available after therapy.

**Results:** Mean Mg, Zn, and Cu levels at baseline are illustrated in the table:

Trace element	Controls (n = 23)	Patients (n = 24)	Man-Whitney-T.
Mg (mmol/l)	0.91 $\pm$ 0.07	0.86 $\pm$ 0.07	$p < 0.05$
Zn ( $\mu$ g/dl)	107.2 $\pm$ 18.7	96.2 $\pm$ 13.4	$p < 0.07$ , ns
Cu ( $\mu$ g/dl)	126.1 $\pm$ 31.5	121.1 $\pm$ 23.9	$p < 0.90$ , ns

Multivariate analysis (MANCOVA) including the factors of diagnosis and sex with age as a covariate demonstrated that schizophrenia was independently associated with low Mg levels ( $p < 0.01$ ). There was a trend toward higher serum Zn levels in male compared to female subjects. Neuroleptic therapy was associated with asignificant